IH News, Volume 4

Winter 2001 Issue

The Army Industrial Hygiene Newsletter

This letter is published by the US Army Center for Health Promotion and Preventive Medicine as a service to the Army Industrial Hygiene Program, Federal agencies, and industrial hygienist throughout the federal and private sector.

Upcoming Courses and Conferences

- Intermediate Industrial Hygiene Topics Course, 19-30 March 2001, Towson, Maryland (chppm-www.apgea.army.mil/trng/describe.crs/d6h_f10.htm)
- American Industrial Hygiene Conference and Expo, 2-7 June 2001, New Orleans, Louisiana (www.aiha.org/conf.html)
- Force Health Protection Conference, 26-30 August 2001, Albuquerque, New Mexico (www.chppm-www.apgea.army.mil/trng/datepage.htm#Force)

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Stay Healthy This Winter—CDC Flu Update

The following is a condensed version of the flu update article from the CDC. To get the complete article, plus other news from the CDC, go to http://www.cdc.gov/od/oc/media/pressrel/r2k1228.htm.

CDC influenza surveillance supports the warning to persons at high risk for complications from influenza that it's not too late to get a flu shot this flu season. Influenza activity in the United States is increasing; however it has been low and lower than the same period last year.

The highest influenza activity was reported in Texas. However, six other states are reporting regional influenza activity: Arkansas, Colorado, Georgia, Kentucky, Maryland, and Tennessee. An additional 35 states reported sporadic influenza activity.

Influenza vaccine for this flu season is in good supply now and can still save lives if administered to high risks persons now. For each additional million elderly vaccinated this flu season, an estimated 900 deaths and 1,300 hospitalizations can be prevented.

The vaccine is now available for purchase and can be used to vaccinate anyone, including healthy adults who wish to avoid influenza illness.

During 14 of the last 18 years, the flu season peaked in January or later. The flu season runs through April. The flu shot offers protection 10 to 14 days after vaccination. In an average flu season, 20,000 Americans die and 110,000 are hospitalized because of complications from influenza illness.

Anyone 65 years of age or older, residents of nursing homes, adults and children 6

months of age or older with diabetes, immune system problems, or chronic lung disease are considered high risk for complications and should be vaccinated to protect against the flu. Women who will be in the second or third trimester of pregnancy during the influenza season (November through April) should be vaccinated against the flu.

The Health Hazard Information Module (HHIM) Data Repository

Ever wonder what happens to your HHIM data after the annual data call? Your data is consolidated with all the other Army Installations into the HHIM Data Repository. We query the Data Repository constantly to provide information to higher headquarters and other decision-makers on Industrial Hygiene Resourcing and Work Load; Hazard Exposure Policy; Impact of Regulatory Decisions and other issues that influence your job as an Army Industrial Hygienist.

Use of the HHIM for data collection, manipulation and storage is MANDATORY; it is the way Army Industrial Hygiene does business. If you refuse to use the system you marginalize your benefits from the current initiatives designed to identify and resolve industrial hygiene manpower deficits.

If your HHIM system does not work, contact TMSCC at 1.800.600.9332 (CONUS) or 1.800.981.5339 (OCONUS). If you need training or other assistance, contact Mr. Dennis Morgan at 410-436-2439 <dennis.morgan@apg.ameddd.armymil>.

Mold Contamination Inside Military Housing Units

We receive many requests from field personnel with regards to mold contamination clean-up procedures in military housing. Like all organisms, fungi have an absolute requirement for water. The types of fungi and their abundance in an area depend on the availability of nutrients (i.e., dirt), water and temperature. Chronic water intrusions, lack of adequate ventilation and moisture control, and or isolated floods are typical conditions, which lead to mold growth in our housing units.

When fungal growth is present, the removal and cleaning of contaminated materials must be handled with proper precautions, because disturbing this growth can result in bioaerosol release, i.e., sending millions of spores into the atmosphere. In 1993, New York City Department of Health published guidance on assessment and remediation for *Stachybotrys Atra* (now known as *Stachybotrys chartarum*), a toxigenic fungus. Current guidance from the ACGIH Bioaerosols committee published in 1999 has recommended in general, the removal and containment precautions required for toxigenic fungi should be used for remediating any visible mold contamination because virtually all fungi can cause allergy (in sensitized individuals) and many fungi produce toxins (ACGIH, 1999, ref. 1). In November 2000, the New York City Department of Health updated their guidance to include all fungi. See this link for specific guidance—http://www.ci.nyc.ny.us/html/doh/html/epi/moldrpt1.html#remed.

Concentrations of airborne spores indoors during material disturbance and removal may approach levels characteristic of dusty agricultural environments (Hunter et al., 1988 ref. 2; Rautiala et al., 1996, ref. 3). Resulting exposures may compromise the health of the remediation workers and the building occupants.

When visible contamination is extensive (> 100 ft^2), containment procedures similar to those used to handle hazardous wastes (e.g. asbestos) are required to safely remove contaminated materials (Morey, 1994, ref. 4). To clean the contaminated area, consider using recommendations others have developed to handle removal of materials visibly contaminated with fungi. This work should be conducted while the housing unit is unoccupied (NYCDH, 2000, ref. 5; Weber and Martinez, 1996, ref. 6). With appropriate personal protec-

tive equipment, the local DPW personnel, who are certified by a physician as free from asthma and allergy or lung problems, should be able to remediate visibly contaminated areas of less than 3 m^2.

Identification of the building conditions that contributed to the microbial growth is the most important step in remediation. Visible microbial growth in any building is unacceptable and should be removed and cleaned ASAP. Again, find the water intrusion and correct it to prevent the mold from reappearing.

To slow down mold growth inside the housing units, follow these specific recommendations:

- Keep the relative humidity in the housing units between 40 - 60%.
- Use an air conditioner or a dehumidifier during humid months.
- Ensure the housing units have adequate ventilation, including exhaust fans in kitchen and bathrooms.
- Mold inhibitors may be added to paints before application.
- Clean bathrooms with mold killing products.
- Do not carpet bathrooms and basements.
- Remove or replace any previously soaked carpets and upholstery.
- There are no federal or army standards with regards to Indoor Air Quality. However, AR 420-70, *Buildings and Structures*, which can be found at this site: http://books.usapa.belvoir.army.mil/cgi-bin/bookmgr/BOOKS/R420_70/CCONTENTS can provide necessary authority why DPW should maintain the ventilation equipment and repair the problems to the building structures for our soldiers and their family members.

POC for this information is Vickie R. Hawkins, MSES, Industrial Hygienist, Industrial Hygiene Field Services Program, U.S. Army Center for Health Promotion and Preventive Medicine, DSN 584-3144 or 410-436-3144, or email <vickie.hawkins@apg.amedd.army.mil>.

References

1. Bioaerosols: Assessment and Control, ACGIH, 1999.
2. Hunter, C.A.; Grant, C.; Flannigan, B.; et al.: Mould in Buildings: The Air Spora of Domestic Dwellings. International Biodeterioration. 24:81-101 (1988).
3. Rautiala, S.; Reponen, T.; Hyvarinen, A.; et al.: Exposure to Airborne Microbes During the Repair of Moldy Buildings. Am. Ind. Hyg. Assoc. j. 57:279-284 (1996).
4. Morey, P.R.: Studies on Fungi in Air Conditioned Buildings in a Humid Climate. In: Proceedings: Conference on Biological Contaminants. Saratoga Springs, NY (1994).
5. New York City Department of Health, New York City Human Resources Administration, and Mount Sinai-Irving J. Selikoff Occupational Clinical Center: Guidelines on Assessment and Remediation of Fungi in Indoor Environments. New York, NY (Nov 2000).
6. Weber, A.M.; Martinez, K.F.: NIOSH Health Hazard Evaluation Report 93-1110-2575. Martin County Courthouse and Constitutional Office Building, Stuart Florida, May 1996. U.S. Department of Health and Human Services (1996).

Equipment Tips

Supplier Info:

The ACT™ Monitoring Card System formally available from Environmetrics Products Company of Charleston, SC is presently available from Acculabs Technologies, Inc., 1018 E. Morrisville Parkway, Morrisville, NC. Their telephone number is (919) 468-8780. Acculabs Technologies currently stocks STEL, Ceiling, or PEL-TWA monitoring cards utilized by the ACT™ system for up to nine (9) different chemicals. They also stock badge collar clips and the ACT ™ electronic reader, which is necessary for monitoring card interrogation. With over five years of use by CHPPM IH's, this passive badge system has proven to quite reliable and very field worthy. For further information contact Linda Hindman, USACHPPM, DSN 584-2106 or Commercial (410) 436-2106.

Help is Available:

Having trouble with some of your older IH equipment? Can't locate a critical replacement part? Don't know if you should turn it in? Can't find a parts supplier? Perhaps we can help. Skilled technicians with a combined 65 years of equipment experience staff the CHPPM Industrial Hygiene Equipment Lab. Give us a call at DSN 584-2106 or Commercial (410) 436-2106. We've been helping people like you for over 33 years.

Fourth Annual Force Health Protection Conference (FHP)

Do you have a great IH story? A great IH program? Were you able to save your command precious funding by demonstrating effective IH practices? We are looking for a few good people to present at the 4th Annual Force Health Protection Conference.

We are developing that portion of the agenda of interest to Industrial Hygienists, Environmental Science Officers and Sanitary Engineers with IH responsibilities; and Hospital Safety Managers.

If you would like to present a topic related to Force Health Protection, please e-mail me or send a fax with a brief outline of your topic. You have several options for presentation: platform presentation; roundtable discussion; or poster session. We would like to see topics that address multidisciplinary efforts. For example your presentation could pertain to interaction of occupational health nurses and industrial hygienists regarding occupational exposures of soldiers during field training exercises; or support to the reserve component; or application of JCAHO to DEPMEDs.

If your presentation is selected, you will be funded airfare and 2.5 days per diem.

I look forward to your submissions. CIH and CSP certification maintenance points are awarded for attending the conference and for presenting a paper or poster session. For more information, contact Bonnie D. Burello, 410-436-2439, DSN 584, fax 410-436-8795 or DSN 584, or email at <Bonnie.Burello@apg.amedd.army.mil>.

Ergonomic Developments

➢ HQDA Letter 40-00-1, Army Ergonomics Programs (http://chppm-www.apgea.army.mil/ergopgm/ergohome.htm), was published in July 2000. This HQDA LTR outlines program requirements and responsibilities. All Army installations and facilities are required to comply with this directive.

➢ OSHA Ergonomics Standard (http://www.osha-slc.gov/ergonomics-standard/regulatory/regtext.html) was published in November 2000 and became effective 16 January 2001. The existing DOD and DA requirements (DODI 6055.1 and HQDA LTR 40-00-1) meet most of the OSHA Standard requirements. The USACHPPM Ergonomics Program and the DOD Ergonomics Working Group are preparing information documents, fact sheets and implementation guidelines and materials for installation-level personnel. These materials will be posted to the USACHPPM Ergonomics Program home page (http://chppm-www.apgea.army.mil/ergopgm/ergohome.htm) by 15 March 2001.

➢ The Army Phased Ergonomics Program Development Program was posted to the USACHPPM Ergonomics Program home page. We recommend using this phase program to start developing local programs to meet the DOD, Army and OSHA requirements.

➢ Several new educational / informational booklets and brochures have been published over the past few months. All of these documents are posted on the USACHPPM Ergonomics Program home page and may be downloaded for local reproduction and distribution.

➢ **Creating the Ideal Computer Workstation: A Step-by-Step Guide.** The guide is a new publication targeting office workers and supervisors. The Guide was developed by the DOD Ergonomics Working Group. It provides a step-by-step process for workers to assess their work area and make appropriate changes.

➢ **Preventing Work-Related Musculoskeletal Disorders.** This document replaces the AEHA/ASC publication, *CTD Guide. Preventing WMSDs* targets workers/soldiers, supervisors and management. It was developed by the DOD Ergonomics Working Group and provides an overview of ergonomics, risk factors, ergonomic design solutions and resources.

➢ More to come in the next issue:

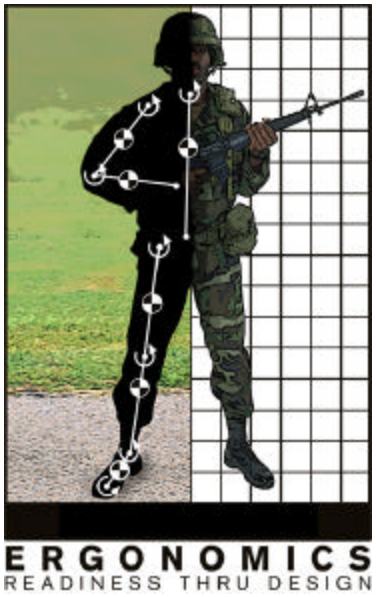
  ➢ Ergonomics review of the ANSI Ergonomics Standard

  ➢ Patient handling initiative

  ➢ Tele-ergonomics project

  ➢ Handtool replacement project

Contact the USACHPPM Ergonomics Program, 410-436-3928 or DSN 584-3928 for more information.



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Check Out This Web Site!

DA Pam 40-503, Industrial Hygiene Program, has been published and can be found on the following web site: http://www.usapa.army.mil/gils/newpubs.html

You will need to scroll down to find it.